LISTING OF CLAIMS

This listing of claims replaces all prior versions and listings of claims in the patent application.

Claim 1 (currently amended): A microdot mark shape which is formed ~~by a laser beam,~~ on a surface of an article to be marked, ~~which is a wafer, by using a laser as a light source,~~ wherein

the article to be marked is a semiconductor wafer,

~~the~~ a microdot mark ~~shape~~ is ~~made by one dot mark~~ formed ~~on each~~ by laser ~~irradiated point~~ irradiation and comprises a single dot mark on each laser irradiated point,

the mark has a single protrusion, which includes a concave portion provided around the protrusion and lower than a surface of the wafer and whose center portion protrudes ~~in the center portion~~ upward ~~from the surface of the article to be~~ marked so as to be higher than the surface of the wafer, ~~and~~

the length of each dot mark along the surface of the article to be marked is 1.0 to 15.0 μm

Claim 2 (cancelled)

Claim 3 (previously presented): A method of forming a mark made by dots on the surface of an article to be marked by laser beams emitted from a pulse laser oscillator, comprising the steps of:

homogenizing an energy distribution of the laser beam emitted from the laser oscillator by a beam homogenizer;

forming a desired pattern by driving and controlling a liquid crystal mask in which the maximum length of each pixel is 50 to 2,000 μm and irradiating the liquid crystal mask with the laser beam homogenized by the beam homogenizer;

setting the energy density on a surface to be marked, of a split laser beam which passed through the liquid crystal mask to 1.0 to 15.0 J/cm^2 ; and

condensing the laser beam for each dot by a lens unit, which passed through the liquid crystal mask, so that the maximum length of each dot is set to 1.0 to 15.0 μm and imaging each dot onto the surface of the article to be marked.

Claim 4 (original): A microdot mark forming method according to claim 3, wherein said energy density of said split laser is set within a range of 1.5 to 3.7 J/cm^2.

Claim 5 (original): A microdot mark forming method according to claim 3, wherein said energy density of said split laser is set within a range of 3.7 to 11.0 J/cm^2.

Claim 6 (original): A microdot mark forming method according to claim 3, wherein beam profile converting means which takes the form of a dot matrix of the same size as that of a pixel matrix of the liquid crystal mask and converts an energy density distribution of the laser beam into a required distribution is provided at the front or post stage of the liquid crystal mask.

Claim 7 (previously presented): A microdot mark shape according to claim 1, wherein the height of the protrusion is 0.01 to 5.0 μm.

Claim 8 (previously presented): A microdot mark shape according to claim 1, wherein a periphery of the protrusion of said dot mark is recessed.

Claim 9 (previously presented): A microdot mark shape according to claim 1 wherein the surface of the article to be marked is a front or a rear surface of an integrated circuit.

Claim 10 (previously presented): A microdot mark shape according to claim 1, wherein said dot mark is so configured and arranged on the surface of the article to be marked for product management or various securities.

Claim 11 (currently amended): A microdot mark shape which is formed ~~by a laser beam,~~ on a surface of an article to be marked, ~~which is a wafer, by using a laser as a light source,~~ wherein

the article to be marked is a semiconductor wafer,

~~the~~ a microdot mark ~~shape~~ is ~~made by one dot mark~~ formed ~~on each~~ by laser ~~irradiated point~~ irradiation and comprises a single dot mark on each laser irradiated point,

the mark has a single protrusion, which includes a concave portion provided around the protrusion and lower than a surface of the wafer and whose center portion protrudes ~~in the center portion~~ upward ~~from the surface of the article to be marked~~ so as to be higher than the surface of the wafer,

the length of each dot mark along the surface of the article to be marked is 1.0 to 15.0 μm, and

the dot mark is formed for product management or various securities.